Appendix C: Standards and Guides

Resource	Standards and Guides
Watershed	There are numerous S&Gs pertinent to watershed and riparian resources. As described in detail above, the following five applicable monitoring activities were selected as the best parameters to measure prescriptions and effects.
	* Degree to which Standards and Guidelines representative of Water Quality Best Management Practices (BMPs) are being applied to Forest projects.
	 Lakes- Water quality parameters. Streams – Stream channel, habitat, substrate conditions, and fisheries information collected at established stream monitoring sites on the SNF.
	* Road/Stream Crossing Restoration Projects – Projects are monitored to evaluate success road/stream crossing improvements. Specifically, benefits to aquatic organism passage, stream flow, sediment transport, and floodplain function.
	Dark River Large Woody Debris Project - Monitoring occurs to document large woody debris structure function and integrity, changes in stream channel and habitat conditions, and fish population diversity and abundance.
Soils	G-WS-8. Follow the limitations on management activities as specified in Table G WS-8Fair Compliance. G-WS-9. During resource management activities, minimize adverse impacts to soil productivity by striving to have no more than 15 percent of a treatment area in a detrimentally compacted, eroded, rutted, displaced, or severely burned condition. Fair Compliance. G-WS-10. When conducting prescribed burns on ELTs 7, 8, 9, 11, 12, 16, 17, & 18, minimize the loss of surface O layer. Provide for: a. Igniting burns only when the Canadian Fire Weather Index System Build Up Index (BUI) is 50 or less. b. Adjustment of ignition timing and firing patterns c. Taking into account vegetation type, topography, number of days since precipitation, wind, air temperature, humidity, and fuel loadings. Good Compliance. G-WS-11. On ELTs 7-9, 11, 12, & 16-18, mgt activitieswill be designed & conducted to minimize loss of surface O layer & duff layer. Good Compliance.
Fire	Four applicable Guidelines (G-ID-1 through G-ID-4, Forest Plan p. 2-19) were monitored during 2006 and all were successfully met and did reduce environmental effects as predicted. Three guidelines address applying minimum tool practices during prescribed burns and wildfires and one guideline addresses hazardous fuel treatments near urban interfaces as a part of Community Wildfire Protection Plans. The successful implementation can be attributed to good communication between field crews and burn planners, and that all the guidelines were discussed during briefings and displayed in daily incident reports.
Timber	Approximately five applicable Standards and Guides were monitored during 2007 and all were successfully met and reduced environmental effects as predicted. Three of the Guides (G-TM-3, G-TM-5, S-TM-4) involved clear-cutting and two dealt with Land Suitability and timber production (G-TM-1 and S-TM-1).
NNIS	G-WL-23-This guideline specified reducing the spread of NNIS during project implementation. Design criteria that help implement this guideline have been included in all vegetation management projects since 2004. As described earlier, 17 Virginia EIS sale units were monitored for weed spread after harvest to assess effectiveness of the weed design criteria. Although a high percentage of stands had new infestations caused by the timber harvest, the amount of new weed acres was still quite low. This indicates that the timber harvest weed spread mitigations were successful at reducing weed spread
Vegetation	Approximately eighteen applicable Standards and Guides were monitored during 2006 and fell into three basic categories. These are summarized as follows: (1) Forest Vegetation Age (S-VG-1) – This category deals with projects under the Healthy Forest Restoration Act (HFRA) which had the potential to adversely affect structure and composition within old growth stands. Monitoring did not occur as no projects that affected old growth forest were implemented under HFRA authority in 2006.

Resource	Standards and Guides
	(2) Forest Vegetation Spatial Patterns (S-VG-2 through 7; G-VG-1 through 7). Monitoring occurred through recent NEPA decisions (Tomahawk and Dunka EA's; also, the Virginia EIS). With the exception of the 10,000+ acre patch in Zone 2 (S-VG-5),, the Forest was in compliance with these Standards and Guidelines.
	(3) Special Forest Products (G-VG-8 through 11) – Monitoring occurred through a review of Forest policies and requirements involving the permitting process and through enforcement of regulations involving unauthorized collections. In all cases, the Forest is in compliance with these Standards and Guidelines.
MIH. Aquatic	Standards and Guides for Aquatic MIH are the same as displayed under the Watershed-Riparian Section of this report.
RFSS Aquatic	O-WL-28 – In all know sites and breeding locations, enhance, or restore high quality habitat for these species primarily by implementing management direction that promotes desired conditions for healthy and functional watersheds, riparian areas, and vegetation.
	O-WL-29 – Additionally, during evaluation and restoration of one to two 5 th level watersheds per year, known locations of the following sensitive aquatic species will provide priority areas for proactive management to improve habitats: Lake Sturgeon, Shortjaw Cisco, Northern Brook Lamprey, Creek Heelsplitter, Flutted Shell Mussel (CNF), and Black Sandshell Mussel.
	G-WL-19 – Protect known sensitive mussel beds.
RFSS-Plants	Four out of the six pertinent standards and guides dealing with sensitive plants were implemented in 2007 (S-WL-5, S-WL-8, S-WL-9, and G-WL-11). For these four, their implementation was successful at reducing impacts to sensitive species. For the two remaining sensitive plant standards and guidelines there was no cause to implement them, and these are not evaluated further. There are other projects pending on the Forest that will employ sensitive plant standards and guidelines.
Minerals and Geology	Forest Plan Standards and Guidelines apply to federal and non-federal minerals outside and inside the BWCAW and Mining Protection Area. The Standards and Guidelines address permitting (S-MN-1 through S-MN-11, Forest Plan pp. 2-9 to 2-10), mitigation to protect surface resources (S-MN-12 and 13, Forest Plan p. 2-10), and reclamation (G-MN-1, Forest Plan p. 2-10). All applicable Forest Plan direction was followed successfully. Private reserved minerals have Secretary of Agriculture Rules and Regulations associated with the warranty deed that must be followed. The SNF negotiates mitigation for private outstanding minerals. See the Forest Plan for a complete list of Standard and Guidelines.
Tribal	Eight Tribal Rights Standards and Guides, [(S&G's) Forest Plan p. 2-38] were monitored during 2007. Three of the Standards and Guides (S-TR-1, S-TR-2, and S-TR-5) address consultation; three (S-TR-3, S-TR-4, and G-TR-3), address tribal interests in designing projects; and two (S-TR-6 and 7) address Tribal interests in environmental documents. All eight of the monitored S&G's were adequately met (S-TR-1, S-TR-2, S-TR-3, S-TR-4, S-TR-5, S-TR-6, S-TR-7, and G-TR-3). However, all the S&G's could and should be more fully implemented during 2008 and beyond.
Heritage	Approximately twelve applicable Standards and Guides were monitoring during 2007and all were implemented successfully. Two standards involved inventory and monitoring, two dealt with documentation, two include collaboration with and guidance from other agencies, one involves planning support, and the remaining standards revolve around management and protection.
Recreation Motor Vehicles	There are seven Standards and Guidelines (S&G's) applicable to the RMV resource. These are S-RMV-1 through 3 and G-RMV-1 through 4 (Forest Plan pp. 2-43 to 2-44). During 2007, four S&G's pertinent to RMV route designations and/or prohibitions were monitored and found to be implemented successfully by virtue of their designation on the 2006 Forest Travel Plan. This does not mean that violations or non-compliance of the Travel Plan did not occur, but rather the SNF did designate roads and trails open or closed as directed in the S&G's. Law enforcement personnel addressed violations as described above. The other three S&G's (addressing snowmobile trails, RMV use of road ditches, and RMV scramble areas) were not applicable, not actively monitored, or not encountered during 2006.

Resource	Standards and Guides
Transportation	Five transportation system Standards and Guidelines (S&G's) were monitored during 2007. These S&G's predominately dealt with effectively closing and/or decommissioning existing and temporary un-needed roads. Three of the S&G's addressed road decommissioning and all were found to be fully met. Monitoring revealed that road decommissioning practices and procedures have been effective at re-vegetation and prevention of unwanted motorized use.
Lands	Four applicable Standards and Guidelines (S&G's) were monitored during 2007. These S&G's primarily pertain to guidance criteria for land acquisition and disposal. These S&G's were adhered to, particularly G-LA-5 (Forest Plan p. 2-52) which guides land adjustments within the BWCAW where ongoing exchanges with Lake County are progressing.
Public Health	Three Standards and Guides (S-PH-1, S-PH-2, and G-PH-1) apply to Public Health and all were defecto complied with in that the activities (hazardous spills, sewage waste disposal, and treatment of contaminated soil) did not occur in 2007.